



TRANS TECH CONSULTANTS

*Environmental Compliance Services
Engineers • Geologists • Planners
License # 697833 (A-Haz)*

October 07, 2005
Job No. 3046.01

Mr. John Scarbrough
104 Franklin Street
Fortuna, California 95540

Subject: **3rd Quarter 2005 Monitoring Report**
 Ferndale Motors, 638 Main Street, Ferndale, California
 LOP No. 12343

Dear Mr. Scarbrough:

This report presents the result of the 3rd Quarter 2005 groundwater monitoring and sampling event conducted at the subject site. The site is approximately located as shown on the attached Site Location Map, Plate 1. The work was performed in accordance with directives from the Humboldt County Department of Health and Human Services - Division of Environmental Health.

Monitoring Well Sampling

On September 23, 2005, groundwater samples were collected from monitoring wells (wells) MW-1 through MW-6 and piezometer PZ-1. The approximate well locations and general site features are shown on the attached Site Plan/Groundwater Elevation Contour Map, Plate 2. Prior to sampling, static water levels were measured and each well was checked for the presence of free product using an oil/water interface probe. No free product was reported during this sampling event. To produce representative samples prior to sampling, the wells were then purged of approximately three well casing volumes using a submersible pump. In addition, indicator parameters including the temperature, pH, and conductivity were measured during purging and recorded on the attached Groundwater Field Sampling Forms, Appendix A. The groundwater level in each well was allowed to recover to approximately 90% of its original static level prior to sample collection. Groundwater samples were collected using a separate disposable bailer for each well and transferred to the appropriate containers supplied by the laboratory. The groundwater samples were labeled, stored under refrigerated conditions and then transported under Chain-of-Custody documentation to Kiff Analytical LLC (Kiff) of Davis, California for chemical analysis. Purged groundwater and rinsate water was stored onsite in 55-gallon DOT drums, pending disposal.

Water Level Measurements

Monitoring well top-of-casing (TOC) elevations, depths to groundwater, the calculated water level elevations, and the calculated groundwater flow direction and gradient data for September 23, 2005 are presented in Table 1. Elevations are expressed in feet relative to mean sea level (msl), depths are expressed in feet and gradients are expressed in feet per foot. Historical groundwater flow direction and gradient data are attached in Appendix B.

Table 1: Groundwater Flow Direction and Gradient Data

Sample Date	Monitoring Well ID	Top-of-Casing Elevations (feet - msl)	Water Level Depth (feet)	Calculated Water Level Elevation (feet - msl)	Groundwater Flow Direction/Gradient (i)
09/23/05	MW-1	47.69	8.31	39.38	Variable i = varies
	MW-2	49.16	9.33	39.83	
	MW-3	47.90	8.86	39.04	
	MW-4	46.79	8.03	38.76	
	MW-5	48.14	8.10	40.04	
	MW-6	48.97	8.32	40.65	
	PZ-1	48.86	9.36	39.50	

Groundwater elevation contours based on MW-1 through MW-6, and PZ-1 for the September 23, 2005 monitoring event are shown on Plate 2. It appears that groundwater generally flows southerly towards MW-3 from Main Street and northwesterly towards MW-1 and MW-3 from the subject site. This flow pattern creates a trough - like feature in the vicinity of MW-3.

Laboratory Analytical Results

Groundwater samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline (g) using EPA Test Method 8260. The volatile organic compounds; benzene, toluene, ethyl benzene and xylene (BTEX), the additional oxygenated fuel additives including methyl tert-butyl ether (MtBE), and lead scavengers including 1,2 dichloroethane (EDC) were analyzed using EPA Test Method 8260B. Analysis for TPH as diesel was inadvertently omitted from the sampling suite and will be analyzed for during the next sampling event. The laboratory analytical results for the September 23, 2005 event are presented on page 3, Table 2. The results for TPH-g, BTEX, and MtBE are expressed in micrograms per liter ($\mu\text{g/L}$). The laboratory report and Chain-of-Custody documentation are attached in Appendix C. Historical groundwater sample results are presented in Appendix D.



Table 2: Groundwater Analytical Results

Sample Date	Monitoring Well ID	TPH-g	B	T	E	X	MtBE
		µg/L					
09/23/05	MW-1	3,400	34	2.9	7.3	5.2	<0.50
	MW-2	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	MW-3	1,700	160	1.8	3.6	2.7	0.62**
	MW-4	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	MW-5	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	MW-6	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	PZ-1	<50	<0.50	<0.50	<0.50	<0.50	<0.50

< = Less than the indicates laboratory test method detection limit.
 ** = Additional 8260 analytes detected (see laboratory report).

Discussion

TPH-g was detected in groundwater samples collected from MW-1 and MW-3 at concentrations of 3,400 and 1,700 µg/L, respectively. BTEX constituents were also detected in groundwater samples collected from wells MW-1 and MW-3 with benzene occurring at a maximum concentration of 160 µg/L in MW-3. MtBE was detected in the groundwater sample collected from MW-3 at a concentration of 0.62 µg/L. In addition, the oxygenated fuel additives, di-isopropyl ether (DIPE), tert-butanol (TBA), and lead scavenger, 1,2 dichloroethane (EDC) were detected in the samples detected collected from MW-3 at concentrations of 1.4 µg/L, 8.7 µg/L, and 7.4 µg/L respectively. Samples collected from wells MW-2, MW-4, MW-5, MW-6, and PZ-1 were below laboratory test method detection limits for all the constituents analyzed.

The recent analytical results are generally consistent with historical concentrations of petroleum hydrocarbons and indicate that onsite impact remains greatest in the vicinity of MW-1 and MW-3. Time Vs. Concentration Graphs that depict contaminant concentrations over time have been prepared for wells MW-1 and MW-3 and are attached in Appendix E.

We are currently preparing to implement site work outlined in our Remedial Action Plan. The site is currently on a semi-annual sampling schedule. The next monitoring and sampling event is scheduled for March 2005.

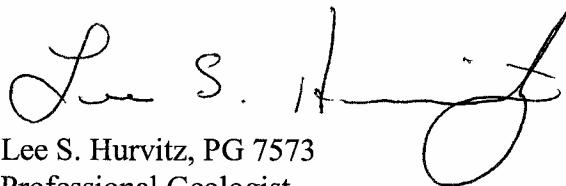


We appreciate the opportunity to be of service to you and trust this provides the information you require at this time. If you have any questions, do not hesitate to contact us at (707) 575-8622 or www.transtechconsultants.com.

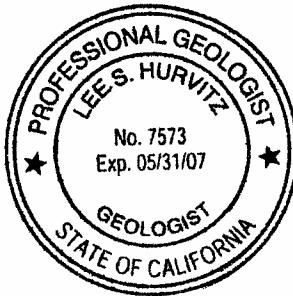
Sincerely,
TRANS TECH CONSULTANTS



Brian R. Hasik
Staff Geologist



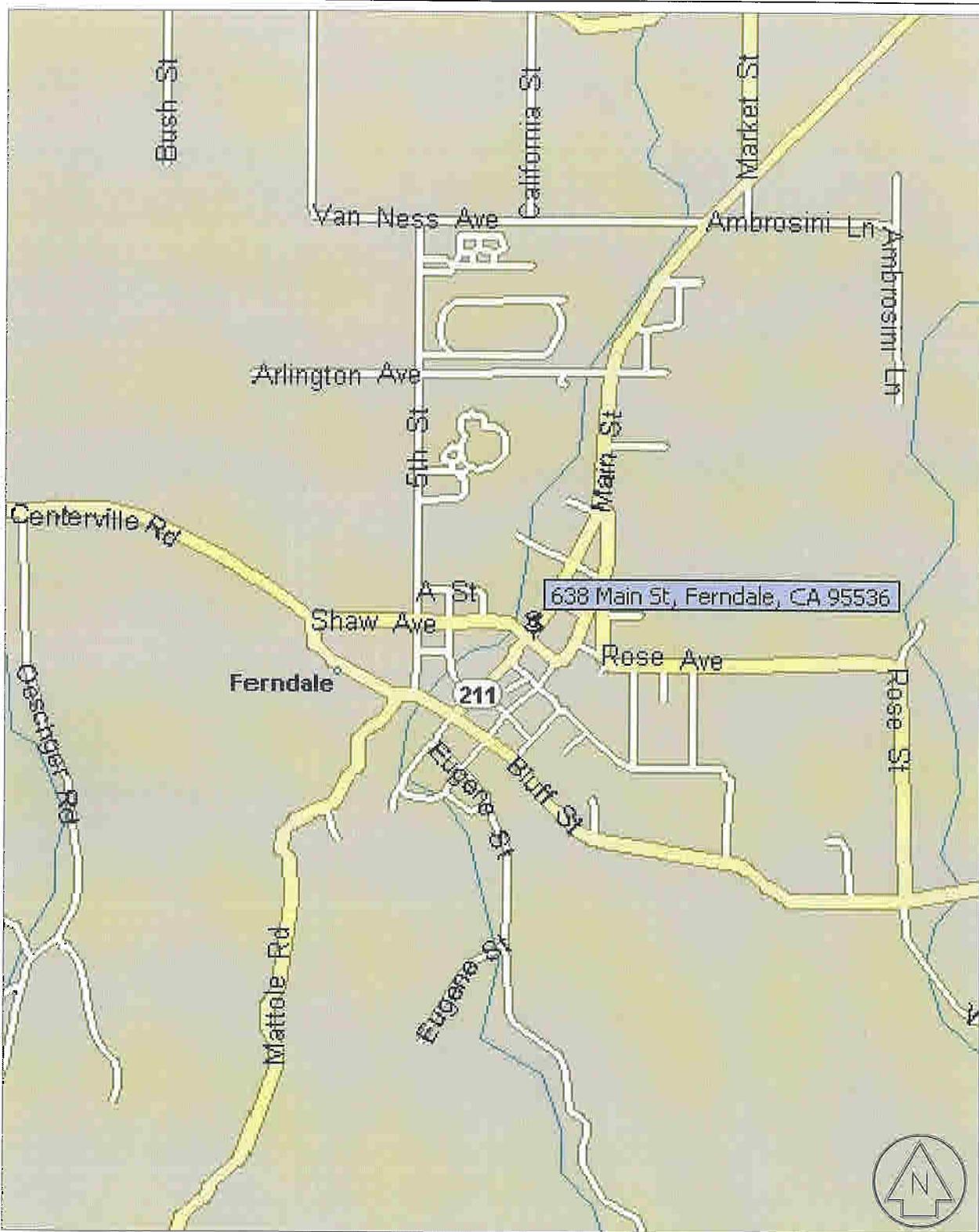
Lee S. Hurvitz, PG 7573
Professional Geologist



QMR_3046_01_100705

Attachments: Plate 1, Site Location Map
Plate 2, Site Plan / Groundwater Elevation Contour Map
Appendix A, Groundwater Field Sampling Forms
Appendix B, Historical Groundwater Flow Direction and Gradient Data
Appendix C, Kiff Analytical LLC Report dated October 3, 2005
Appendix D, Historical Groundwater Analytical Results
Appendix E, Time vs. Concentration Graphs, MW-1 and MW-3
Distribution List

Cc: Mr. Mark Verhey, Humboldt County Department of Health and Human Services - Division of Environmental Health
Ms. Kasey Ashley, North Coast Regional Water Quality Control Board



TRANS TECH CONSULTANTS

930 SHILOH RD., BLDG 44, SUITE J
WINDSOR, CA 95492

PHONE: 707-575-8622 FAX: 707-837-7334

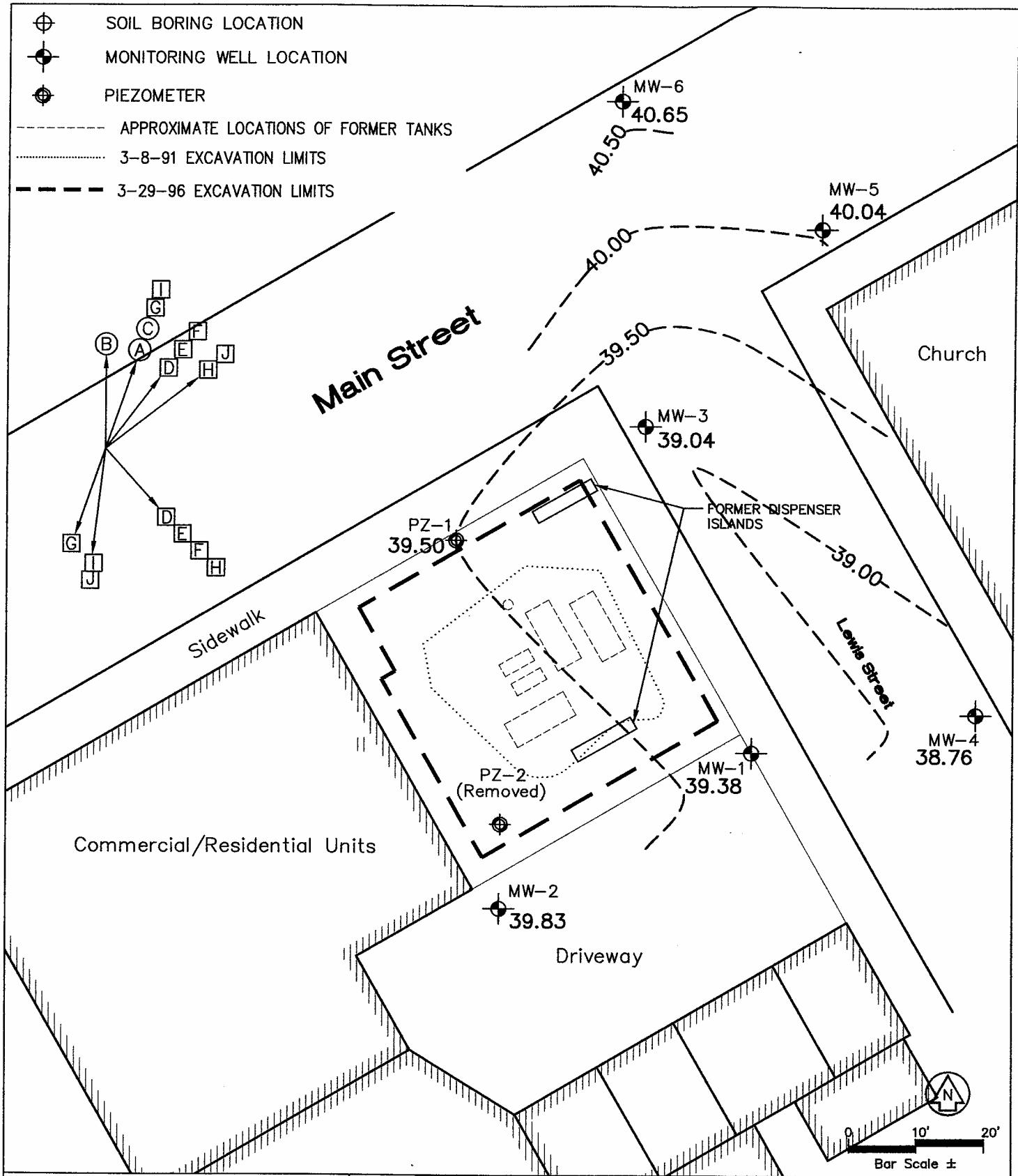
SITE LOCATION MAP

FERNDALE MOTORS
638 MAIN STREET
FERNDALE, CALIFORNIA

PLATE:

1

DRAWN BY: PSC	DWG NAME: 3046.01 SLM	APPR. BY: LSH	JOB NUMBER: 3046.01	W.O. NUMBER: A-246	REVISIONS:	DATE: 9/22/03
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TRANS TECH CONSULTANTS

930 SHILOH RD., BLDG 44, SUITE J
WINDSOR, CA 95492
PHONE: 707-575-8622 FAX: 707-837-7334

SITE PLAN / GROUND WATER ELEVATION CONTOUR MAP FOR 9/23/05

FERNDALE MOTORS
638 MAIN STREET
FERNDALE, CALIFORNIA

PLATE:

2

SHEET 1 OF 2

DRAWN BY: JLP	DWG NAME: 3046.01 GWFP	APPR. BY: BRH	JOB NUMBER: 3046.01	W.O. NUMBER: A-634	REVISIONS:	DATE: 10/5/05
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GROUNDWATER FLOW LEGEND

 MW-1 Monitoring Well Location
[XX.XX] Groundwater Elevation

NOTE: Ground water elevations are in feet above mean sea level (National Geodetic Vertical Datum, 1929).

Excavation Limits, 3/8/91

— — Excavation Limits, 3/29/96

Estimated Groundwater Flow Direction

Estimated Groundwater Variable Flow Direction



930 SHILOH RD., BLDG 44, SUITE J
WINDSOR, CA 95492
PHONE: 707-575-8622 FAX: 707-837-7334

SITE PLAN / GROUND WATER ELEVATION CONTOUR MAP FOR 9/23/05

FERNDALE MOTORS
638 MAIN STREET
FERNDALE, CALIFORNIA

PLATE:

2

SHEET 2 OF 2

APPENDIX A

GROUNDWATER FIELD SAMPLING FORM

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GROUNDWATER FIELD SAMPLING FORM

WELL INFORMATION							
Project Number/Name: 3046.01 Ferndale Motors					Well Number: PZ-1		
Project Location: 638 Main Street Ferndale, California			Casing Diameter: 2"		Well Depth from TOC (BP): 15.10 Well Depth from TOC (AP):		
Date: September 22, 2005			Top of Screen:		Initial Well Depth:		
Sampled by (print and sign): Brian Hasik <i>Brian Hasik</i>			Product Thickness in inches: 8 Water Level from TOC: 9.36 Time: 9:21				
Notes: Almost dry @ 4g			Water Level pre-purge: 9.36		Time: 9:36		
			Well Type: <input checked="" type="checkbox"/> Monitor <input type="checkbox"/> Extraction <input type="checkbox"/> Other:				
			Well EL (TOC): Well Mat: PVC				
WEATHER							
Wind: Yes / No	Clouds: Yes / No	Sun: Yes / No	Precipitation in last 5 days: Yes / No				
Rain: Yes / No	Fog: Yes / No						
VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING							
TD	WL	Dia. Inches	X () ² X 0.0408 = 0.92 gallons in one well volume				
2.76			gallons in 3 well volumes (Approx. 0.6 gal/ft) 4 total gallons purged				
FIELD MEASUREMENTS DURING PURGING							
Stable Field Parameters Required Prior to Sample Collection <10% pH and EC change, <0.2°C temp. change							
Time	Gallons	pH	TEMP °C	ORP	DO mg/L	EC mS / µS	Turbidity H/M/L
9:37	1	6.52	18.3	103		504.3	L
9:38	2	6.36	18.9	123		54.1	L
9:39	3	6.32	18.8	131		573.9	Z
9:40	4	6.36	18.7	128		572.8	L
						2.6	
Minimum of 5 gallons or 0.6 gal/ft. Of water in casing - whichever is greater and field parameters must be stable.							
Water Level Before Sampling: 9.54			Time: 11:15				
Appearance of Sample:							
Bailer: Disposable		Pump: 12V Submersible (1-2 gpm)					
DECON. METHOD: TSP or Liquinox (phosphate free) Wash / Double Rinse							
NUMBER OF DRUMS GENERATED: Water: 1/2			Soil: 0		Other: X		

APPENDIX B

Appendix B - Historical Groundwater Flow Direction and Gradient Data

Date	Monitoring Well	Top-of-Casing Elevations	Measured Water Level Depths	Calculated Water Level Elevations	Ground-Water Flow Direction/Gradient (i)
07/8/98	MW-1	47.69	7.45	40.24	North i = 0.020
	MW-2	49.16	8.46	40.70	
	MW-3	47.90	8.60	39.30	
12/30/99	MW-1	47.69	7.53	40.16	N 22°E i = 0.022
	MW-2	49.16	8.21	40.95	
	MW-3	47.90	8.57	39.33	
03/28/00	MW-1	47.69	7.10	40.59	N 2°W i = 0.027
	MW-2	49.16	8.00	41.16	
	MW-3	47.90	8.60	39.30	
09/07/00	MW-1	47.69	8.20	39.49	S 77°E i = 0.010
	MW-2	49.16	9.35	39.81	
	MW-3	47.90	8.16	39.74	
11/15/00	MW-1	47.69	7.26	40.43	N37°E i = 0.026
	MW-2	49.16	7.66	41.50	
	MW-3	47.90	8.21	39.69	
03/28/01	MW-1	47.69	7.00	40.69	North i = 0.03
	MW-2	49.16	7.80	41.36	
	MW-3	47.90	8.57	39.33	
07/26/01	MW-1	47.69	8.10	39.59	N23°E i = 0.02
	MW-2	49.16	9.04	40.12	
	MW-3	47.90	8.82	39.08	
10/16/01	MW-1	47.69	8.38	39.31	N20°E i = 0.01
	MW-2	49.16	9.46	39.70	
	MW-3	47.90	8.87	39.03	



Appendix B Continued

Date	Monitoring Well	Top-of-Casing Elevations	Measured Water Level Depths	Calculated Water Level Elevations	Ground-Water Flow Direction/Gradient (i)
01/14/02	MW-1	47.69	6.87	40.82	N 20°E i = 0.03
	MW-2	49.16	7.16	42.00	
	MW-3	47.90	8.39	39.51	
04/22/02	MW-1	47.69	7.11	40.58	North i = 0.03
	MW-2	49.16	7.93	41.23	
	MW-3	47.90	8.59	39.31	
07/23/02	MW-1	47.69	8.10	39.59	N 20°E i = 0.01
	MW-2	49.16	9.12	40.04	
	MW-3	47.90	8.82	39.08	
12/04/02	MW-1	47.69	8.12	39.57	Easterly i = 0.03
	MW-2	49.16	8.95	40.21	
	MW-3	47.90	8.86	39.04	
	MW-4	46.79	7.92	38.87	
	MW-5	48.14	8.56	39.58	
	MW-6	48.97	9.04	39.93	



Appendix B - Continued

Sample Date	Monitoring Well ID	Top-of-Casing Elevations (feet - msl)	Measured Water Level Depths (feet)	Calculated Water Level Elevations (feet - msl)	Groundwater Flow Direction/Gradient (i)
03/26/03	MW-1	47.69	6.44	41.25	Easterly i = 0.10
	MW-2	49.16	6.25	42.91	
	MW-3	47.90	8.19	39.71	
	MW-4	46.79	6.78	40.01	
	MW-5	48.14	4.54	43.60	
	MW-6	48.97	3.81	45.16	
09/10/03	MW-1	47.69	8.43	39.26	Easterly i = 0.02
	MW-2	49.16	9.26	39.90	
	MW-3	47.90	8.83	39.07	
	MW-4	46.79	7.99	38.80	
	MW-5	48.14	8.37	39.77	
	MW-6	48.97	8.91	40.06	
3/03/04	MW-1	47.69	6.60	41.09	Variable i = varies
	MW-2	49.16	6.74	42.42	
	MW-3	47.90	8.18	39.72	
	MW-4	46.79	7.50	39.29	
	MW-5	48.14	5.45	42.69	
	MW-6	48.97	5.68	43.29	



Appendix B - Continued

Sample Date	Monitoring Well ID	Top-of-Casing Elevations (feet - msl)	Water Level Depth (feet)	Calculated Water Level Elevation (feet - msl)	Groundwater Flow Direction/Gradient (i)
7/02/04	MW-1	47.69	8.05	39.64	Variable i = varies
	MW-2	49.16	9.05	40.11	
	MW-3	47.90	8.80	39.11	
	MW-4	46.79	8.01	38.78	
	MW-5	48.14	8.11	40.03	
	MW-6	48.97	8.54	40.43	
03/15/05	MW-1	47.69	7.36	40.33	Variable i = varies
	MW-2	49.16	8.10	41.06	
	MW-3	47.90	8.64	39.26	
	MW-4	46.79	7.84	38.95	
	MW-5	48.14	6.75	41.39	
	MW-6	48.97	6.36	42.61	
	PZ-1	48.86	8.82	40.04	
09/23/05	MW-1	47.69	8.31	39.38	Variable i = varies
	MW-2	49.16	9.33	39.83	
	MW-3	47.90	8.86	39.04	
	MW-4	46.79	8.03	38.76	
	MW-5	48.14	8.10	40.04	
	MW-6	48.97	8.32	40.65	
	PZ-1	48.86	9.36	39.50	



APPENDIX C

APPENDIX C contains the following tables:

Table C-1: Summary of the 1990 Census Data for the United States.

Table C-2: Summary of the 1990 Census Data for the United States.

Table C-3: Summary of the 1990 Census Data for the United States.

Table C-4: Summary of the 1990 Census Data for the United States.

Table C-5: Summary of the 1990 Census Data for the United States.

Table C-6: Summary of the 1990 Census Data for the United States.

Table C-7: Summary of the 1990 Census Data for the United States.

Table C-8: Summary of the 1990 Census Data for the United States.

Table C-9: Summary of the 1990 Census Data for the United States.

Table C-10: Summary of the 1990 Census Data for the United States.

Table C-11: Summary of the 1990 Census Data for the United States.

Table C-12: Summary of the 1990 Census Data for the United States.

Table C-13: Summary of the 1990 Census Data for the United States.

Table C-14: Summary of the 1990 Census Data for the United States.

Table C-15: Summary of the 1990 Census Data for the United States.

Table C-16: Summary of the 1990 Census Data for the United States.

Table C-17: Summary of the 1990 Census Data for the United States.

Table C-18: Summary of the 1990 Census Data for the United States.

Table C-19: Summary of the 1990 Census Data for the United States.

Table C-20: Summary of the 1990 Census Data for the United States.

Table C-21: Summary of the 1990 Census Data for the United States.

Table C-22: Summary of the 1990 Census Data for the United States.

Table C-23: Summary of the 1990 Census Data for the United States.

Table C-24: Summary of the 1990 Census Data for the United States.

Table C-25: Summary of the 1990 Census Data for the United States.

Table C-26: Summary of the 1990 Census Data for the United States.

Table C-27: Summary of the 1990 Census Data for the United States.

Table C-28: Summary of the 1990 Census Data for the United States.

Table C-29: Summary of the 1990 Census Data for the United States.



Report Number : 46154
Date : 10/3/2005

Brian Hasik
Trans Tech Consultants
930 Shiloh Rd., Building 44, Suite J
Windsor, CA 95492

Subject : 7 Water Samples
Project Name : FERNDALE MOTORS
Project Number : B046.01

Dear Mr. Hasik,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff



Report Number : 46154

Date : 10/3/2005

Project Name : FERNDALE MOTORS

Project Number : B046.01

Sample : MW-1

Matrix : Water

Lab Number : 46154-01

Sample Date : 9/23/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	34	0.50	ug/L	EPA 8260B	10/1/2005
Toluene	2.9	0.50	ug/L	EPA 8260B	10/1/2005
Ethylbenzene	7.3	0.50	ug/L	EPA 8260B	10/1/2005
Total Xylenes	5.2	0.50	ug/L	EPA 8260B	10/1/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	10/1/2005
TPH as Gasoline	3400	50	ug/L	EPA 8260B	10/1/2005
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Toluene - d8 (Surr)	82.2		% Recovery	EPA 8260B	10/1/2005
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	10/1/2005
Dibromofluoromethane (Surr)	95.9		% Recovery	EPA 8260B	10/1/2005
1,2-Dichloroethane-d4 (Surr)	86.7		% Recovery	EPA 8260B	10/1/2005

Approved By:

Joel Kiff



Report Number : 46154

Date : 10/3/2005

Project Name : FERNDALE MOTORS

Project Number : B046.01

Sample : MW-2

Matrix : Water

Lab Number : 46154-02

Sample Date : 9/23/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	10/1/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/1/2005
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Toluene - d8 (Surr)	97.0		% Recovery	EPA 8260B	10/1/2005
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	10/1/2005
Dibromofluoromethane (Surr)	99.9		% Recovery	EPA 8260B	10/1/2005
1,2-Dichloroethane-d4 (Surr)	97.6		% Recovery	EPA 8260B	10/1/2005

Approved By:

Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 46154

Date : 10/3/2005

Project Name : FERNDALE MOTORS

Project Number : B046.01

Sample : MW-5

Matrix : Water

Lab Number : 46154-05

Sample Date : 9/23/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	10/1/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/1/2005
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Toluene - d8 (Surr)	94.7		% Recovery	EPA 8260B	10/1/2005
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	10/1/2005
Dibromofluoromethane (Surr)	112		% Recovery	EPA 8260B	10/1/2005
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	10/1/2005

Approved By:

Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 46154

Date : 10/3/2005

Project Name : FERNDALE MOTORS

Project Number : B046.01

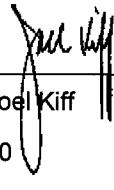
Sample : MW-3

Matrix : Water

Lab Number : 46154-03

Sample Date : 9/23/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	160	0.50	ug/L	EPA 8260B	10/1/2005
Toluene	1.8	0.50	ug/L	EPA 8260B	10/1/2005
Ethylbenzene	3.6	0.50	ug/L	EPA 8260B	10/1/2005
Total Xylenes	2.7	0.50	ug/L	EPA 8260B	10/1/2005
Methyl-t-butyl ether (MTBE)	0.62	0.50	ug/L	EPA 8260B	10/1/2005
Diisopropyl ether (DIPE)	1.4	0.50	ug/L	EPA 8260B	10/1/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Tert-Butanol	8.7	5.0	ug/L	EPA 8260B	10/1/2005
TPH as Gasoline	1700	50	ug/L	EPA 8260B	10/1/2005
1,2-Dichloroethane	7.4	0.50	ug/L	EPA 8260B	10/1/2005
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Toluene - d8 (Surr)	90.4		% Recovery	EPA 8260B	10/1/2005
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	10/1/2005
Dibromofluoromethane (Surr)	106		% Recovery	EPA 8260B	10/1/2005
1,2-Dichloroethane-d4 (Surr)	97.6		% Recovery	EPA 8260B	10/1/2005

Approved By: 
Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 46154

Date : 10/3/2005

Project Name : FERNDALE MOTORS

Project Number : B046.01

Sample : MW-4

Matrix : Water

Lab Number : 46154-04

Sample Date : 9/23/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	9/30/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/30/2005
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	9/30/2005
4-Bromofluorobenzene (Surr)	96.6		% Recovery	EPA 8260B	9/30/2005
Dibromofluoromethane (Surr)	105		% Recovery	EPA 8260B	9/30/2005
1,2-Dichloroethane-d4 (Surr)	99.3		% Recovery	EPA 8260B	9/30/2005

Approved By:

Joel Kiff



Report Number : 46154

Date : 10/3/2005

Project Name : FERNDALE MOTORS

Project Number : B046.01

Sample : MW-6

Matrix : Water

Lab Number : 46154-06

Sample Date : 9/23/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	10/1/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/1/2005
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005
Toluene - d8 (Surr)	97.5		% Recovery	EPA 8260B	10/1/2005
4-Bromofluorobenzene (Surr)	114		% Recovery	EPA 8260B	10/1/2005
Dibromofluoromethane (Surr)	101		% Recovery	EPA 8260B	10/1/2005
1,2-Dichloroethane-d4 (Surr)	98.5		% Recovery	EPA 8260B	10/1/2005

Approved By:

Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 46154

Date : 10/3/2005

Project Name : FERNDALE MOTORS

Project Number : B046.01

Sample : PZ-1

Matrix : Water

Lab Number : 46154-07

Sample Date : 9/23/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Diisopropyl ether (DiPE)	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	9/30/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/30/2005
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	9/30/2005
4-Bromofluorobenzene (Surr)	94.3		% Recovery	EPA 8260B	9/30/2005
Dibromofluoromethane (Surr)	105		% Recovery	EPA 8260B	9/30/2005
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	9/30/2005

Approved By:

Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

QC Report : Method Blank Data
Project Name : FERNDALE MOTORS
Project Number : B046.01

Report Number : 46154
Date : 10/3/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005	Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005	Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005	Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005	Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005	Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Diisopropyl ether (DPE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005	Diisopropyl ether (DPE)	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005	Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Tert-amyI methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005	Tert-amyI methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	10/1/2005	Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	9/30/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/1/2005	TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/30/2005
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005	1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005	1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	9/30/2005
Toluene - d8 (Surr)	97.1	%		EPA 8260B	10/1/2005	Toluene - d8 (Surr)	101	%		EPA 8260B	9/30/2005
4-Bromofluorobenzene (Surr)	111	%		EPA 8260B	10/1/2005	4-Bromofluorobenzene (Surr)	95.4	%		EPA 8260B	9/30/2005
Dibromofluoromethane (Surr)	100	%		EPA 8260B	10/1/2005	Dibromofluoromethane (Surr)	104	%		EPA 8260B	9/30/2005
1,2-Dichloroethane-d4 (Surr)	97.9	%		EPA 8260B	10/1/2005	1,2-Dichloroethane-d4 (Surr)	102	%		EPA 8260B	9/30/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
Diisopropyl ether (DPE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
Tert-amyI methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	10/1/2005						
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/1/2005						
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
Toluene - d8 (Surr)	100	%		EPA 8260B	10/1/2005						
4-Bromofluorobenzene (Surr)	97.9	%		EPA 8260B	10/1/2005						
Dibromofluoromethane (Surr)	100	%		EPA 8260B	10/1/2005						
1,2-Dichloroethane-d4 (Surr)	97.9	%		EPA 8260B	10/1/2005						
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
Diisopropyl ether (DPE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
Tert-amyI methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	10/1/2005						
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/1/2005						
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	10/1/2005						
Toluene - d8 (Surr)	100	%		EPA 8260B	10/1/2005						
4-Bromofluorobenzene (Surr)	101	%		EPA 8260B	10/1/2005						
Dibromofluorobenzene (Surr)	112	%		EPA 8260B	10/1/2005						
1,2-Dichloroethane-d4 (Surr)	103	%		EPA 8260B	10/1/2005						

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By:

Joe Kiff



QC Report : Matrix Spike/ Matrix Spike Duplicate

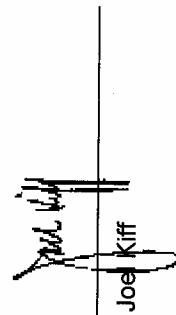
Report Number : 46154

Date : 10/3/2005

Project Name : FERNDALE MOTORS

Project Number : B046.01

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Analysis Method	Date Analyzed	Duplicate Spiked Sample Percent Recov.	Spiked Sample Percent Recov.	Spiked Sample Percent Recov.	Relative Percent Diff. Limit
Benzene	46200-02	<0.50	40.0	40.0	37.4	36.2	ug/L	EPA 8260B	10/1/05	93.5	90.6	3.13
Toluene	46200-02	<0.50	40.0	40.0	36.2	35.0	ug/L	EPA 8260B	10/1/05	90.6	87.4	3.66
Tert-Butanol	46200-02	<5.0	200	200	196	205	ug/L	EPA 8260B	10/1/05	97.8	102	4.61
Methyl-t-Butyl Ether	46200-02	3.4	40.0	40.0	38.2	38.4	ug/L	EPA 8260B	10/1/05	86.9	87.6	0.810
Benzene	46200-01	<0.50	40.0	40.0	39.9	38.9	ug/L	EPA 8260B	10/1/05	99.8	97.2	2.65
Toluene	46200-01	<0.50	40.0	40.0	39.1	35.3	ug/L	EPA 8260B	10/1/05	97.8	88.2	10.3
Tert-Butanol	46200-01	<5.0	200	200	230	227	ug/L	EPA 8260B	10/1/05	115	114	1.49
Methyl-t-Butyl Ether	46200-01	10	40.0	40.0	48.4	47.5	ug/L	EPA 8260B	10/1/05	94.6	92.5	2.23
Benzene	46154-04	<0.50	40.0	40.0	40.1	38.2	ug/L	EPA 8260B	9/30/05	100	95.4	4.81
Toluene	46154-04	<0.50	40.0	40.0	39.6	37.6	ug/L	EPA 8260B	9/30/05	99.1	94.0	5.24
Tert-Butanol	46154-04	<5.0	200	200	198	202	ug/L	EPA 8260B	9/30/05	99.1	101	2.10
Methyl-t-Butyl Ether	46154-04	<0.50	40.0	40.0	38.2	37.7	ug/L	EPA 8260B	9/30/05	95.4	94.3	1.16



KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By: Joe Kiff

QC Report : Laboratory Control Sample (LCS)

Report Number : 46154
Date : 10/3/2005

Project Name : **FERNDALE MOTORS**

Project Number : **B046.01**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	10/1/05	92.2	70-130
Toluene	40.0	ug/L	EPA 8260B	10/1/05	91.3	70-130
Tert-Butanol	200	ug/L	EPA 8260B	10/1/05	99.9	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	10/1/05	86.5	70-130
Benzene	40.0	ug/L	EPA 8260B	10/1/05	101	70-130
Toluene	40.0	ug/L	EPA 8260B	10/1/05	103	70-130
Tert-Butanol	200	ug/L	EPA 8260B	10/1/05	111	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	10/1/05	90.7	70-130
Benzene	40.0	ug/L	EPA 8260B	9/30/05	102	70-130
Toluene	40.0	ug/L	EPA 8260B	9/30/05	105	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/30/05	98.0	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	9/30/05	93.3	70-130

KIFF ANALYTICAL, LLC

Approved By:
Joe Kiff

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800



2795 2nd Street Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

Project Contact (Hardcopy or PDF To):
Brian Hasik

SRG # / Lab No.

46154

Page

1

of

Chain-of-Custody Record and Analysis Request

Company / Address:	Sampling Company Log Code:			Analysis Request															
	Phone #:	Fax #:	Global ID:	10602300262			TAT												
Project #:	P.O. #:	EDF Deliverable To (Email Address):				12 hr			24 hr			48hr			72 hr				
Project Name:	Sample Signature:					W.E.T. Lead (STLC)													
Ferndale Motors				Sampling	Date	Time	Container	Preservative	Matrix	Air	Soil	Water	HNO ₃	HCl	Teflon	Glass	Poly	Sleeve	40 ml VOA
930 Shilton Rd., Building 44, Suite J, Windsor, CA 95492	(707) 575-8622	Project # 6-01	ferndaleconsultants.com	MW - 1	9/23/05	11:45	X	X	X	X	X	X	X	X	X	X	X	X	X
638 Main St.				MW - 2		11:35	X	X	X	X	X	X	X	X	X	X	X	X	X
Ferndale, CA				MW - 3		11:40	X	X	X	X	X	X	X	X	X	X	X	X	X
				MW - 4		11:30	X	X	X	X	X	X	X	X	X	X	X	X	X
				MW - 5		11:25	X	X	X	X	X	X	X	X	X	X	X	X	X
				MW - 6		11:20	X	X	X	X	X	X	X	X	X	X	X	X	X
				PZ - 1		11:15	-	-	-	-	-	-	-	-	-	-	-	-	-
				Relinquished by:	Date	Time	Received by Laboratory:	Kiff			For Lab Use Only:			Sample Receipt					
				Relinquished by:	Date	Time	Received by:	Kiff			Initials			Temp °C					
				Relinquished by:	Date	Time	Received by:	Kiff			Date			Time					
				Relinquished by:	09/26/05	09:30 AM	Jason N Kiff	Kiff			09/26/05			1520 TR-1					
							Analyst									Coat/ Present			
																Yes) No			

Remarks:

No DDBBL

Bill to:	For Lab Use Only:	Sample Receipt

APPENDIX D

Appendix D - Historical Groundwater Analytical Results

Monitoring Well ID	Sample Date	TPH-g	TPH-d	B	T	E	X	MtBE
		µg/L						
MW-1	7/08/98	2,600	ND	36	3.1	ND	3.0	ND**
	12/30/99	5,000	1,800*	83	33	33	31	ND
	3/28/00	2,400	480*	28	5.9	18	7.9	ND
	9/07/00	1,500	600*	41	3.5	17	13	<25
	11/15/00	1,100	1,100	35	6.0	22	13	<50
	3/28/01	NS	NS	NS	NS	NS	NS	NS
	7/26/01	920	<50	24	4.7	9.1	14	<10
	10/16/01	850	68*	3.8	<1.0	2.6	1.6	<1.0
	1/14/02	4,600	540*	50	9.1	13	<5.0	<5.0
	4/22/02	1,800	290*	29	4.9	7.4	6.6	<0.5
	7/23/02	880	130*	23	2.4	6.2	1.4	<0.50
	12/04/02	1,100	170	16	1.1	4.0	1.2	<0.50**
	3/26/03	3,900	520*	53	7.0	14	<5.0	<5.0
	9/10/03	2,100	140	30	<30	<50	<50	<50
	3/04/04	5,200	660*	73	<6.0	32	<10	<10
	7/02/04	3,600	390*	56	<15	<25	<25	<25
	3/15/05	4,100	780*	43	11	15	7.1	<2.5
	9/23/05	3,400	NA	34	2.9	7.3	5.2	<0.50

ND = not detected at or above the laboratory test method detection limits.
 NS = not sampled.
 NA = not analyzed.
 < = less than the reported laboratory detection limits.
 * = higher boiling point components of gasoline are present.
 ** = additional 8260 analytes detected (see laboratory reports).



Appendix D - continued

Monitoring Well ID	Sample Date	TPH-g	TPH-d	B	T	E	X	MtBE
		µg/L						
MW-2	7/08/98	ND	ND	ND	ND	ND	ND	ND
	12/30/99	ND	ND	ND	ND	ND	ND	ND
	3/28/00	ND	ND	ND	ND	ND	ND	ND
	9/07/00	ND	ND	ND	ND	ND	ND	ND
	11/15/00	ND	ND	ND	ND	ND	ND	ND
	3/28/01	NS	NS	NS	NS	NS	NS	NS
	7/26/01	<50	<50	1.1	<1.0	0.60	<1.0	2.7
	10/16/01	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0
	1/14/02	<50	<50	<0.3	<0.3	<0.5	<0.5	2.7
	4/22/02	<50	<50	0.38	1.9	0.82	2.8	2.6
	7/23/02	<50	<50	0.41	<0.30	<0.50	<0.50	2.0
	12/04/02	<50	<50	<0.30	<0.30	<0.50	<0.50	1.6
	3/26/03	<50	<50	<0.30	<0.30	<0.50	<0.50	1.3
	9/10/03	<50	190*	<0.30	<0.30	<0.50	<0.50	1.0
	3/03/04	<50	<50	<0.30	<0.30	<0.50	<0.50	1.9
	7/02/04	<50	<50	<0.30	<0.30	<0.50	<0.50	0.95
	3/15/05	<50	<50	<0.30	<0.30	<0.50	<0.50	0.71
	9/23/05	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50

ND = not detected at or above the laboratory test method detection limits.

NS = not sampled.

NA = not analyzed.

< = less than the reported laboratory detection limits.

* = The sample was apparently mis-labeled and results appear to be consistent with historical results from MW-3.



Appendix D continued

Monitoring Well ID	Sample Date	TPH-g	TPH-d	B	T	E	X	MtBE
		µg/L						
MW-3	7/08/98	250	ND	25	1.9	ND	ND	5.2**
	12/30/99	2,800	1,200*	400	16	28	19	ND
	3/28/00	5,700	600*	750	13	37	ND	ND
	9/07/00	1,200	650*	240	4.0	22	13	2.5**
	11/15/00	1,500	220	230	ND	5.8	ND	<50
	3/28/01	NS	NS	NS	NS	NS	NS	NS
	7/26/01	1,600	ND	210	12	20	20	<25
	10/16/01	570	120*	67	<1.0	3.1	<1.0	<1.0**
	1/14/02	1,000	290*	250	4.0	18	<5.0	<5.0
	4/22/02	2,400	240*	300	1.6	3.6	4.3	1.2
	7/23/02	2,400	240*	430	3.3	13	3.5	<0.50
	12/04/02	950	81***	69	0.94	2.5	1.2	<0.50**
	3/26/03	2,600	200*	290	<3.0	9.3	<5.0	<5.0
	9/10/03	1,600	<50	170	<30	<50	<50	<50
	3/04/04	3,000	560*	460	<30	<50	<50	<50
	7/02/04	3,700	340*	440	<15	<25	<25	<25
	3/15/05	2,200	460*	270	<6.0	<10	<10	<10
	9/23/05	1,700	NA	160	1.8	3.6	2.7	0.62**

ND = not detected at or above the laboratory test method detection limits.

NS = not sampled.

NA = not analyzed.

< = less than the reported laboratory detection limits.

* = higher boiling point components of gasoline are present.

** = additional 8260 analytes detected (see laboratory reports).

*** = the sample chromatographic pattern does not resemble the fuel standard used for quantitation.



Appendix D continued

Monitoring Well ID	Sample Date	TPH-g	TPH-d	B	T	E	X	MtBE
		µg/L						
MW-4	12/04/02	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	3/26/03	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	9/10/03	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	3/03/04	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	7/02/04	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	3/15/05	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	9/23/05	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50

ND = not detected at or above the laboratory test method detection limits.
NS = not sampled.
NA = not analyzed.
< = less than the reported laboratory detection limits.



Appendix D continued

Monitoring Well ID	Sample Date	TPH-g	TPH-d	B	T	E	X	MtBE
		µg/L						
MW-5	12/04/02	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	3/26/03	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	9/10/03	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	3/03/04	<50	230	<0.30	<0.30	<0.50	<0.50	<0.50
	7/02/04	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	3/15/05	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	9/23/05	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50

ND = not detected at or above the laboratory test method detection limits.
 NS = not sampled.
 NA = not analyzed.
 < = less than the reported laboratory detection limits.



Appendix D continued

Monitoring Well ID	Sample Date	TPH-g	TPH-d	B	T	E	X	MtBE
		µg/L						
MW-6	12/04/02	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	3/26/03	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	9/10/03	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	3/03/04	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	7/02/04	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	3/15/05	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	9/23/05	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50

ND = not detected at or above the laboratory test method detection limits.
NS = not sampled.
NA = not analyzed.
< = less than the reported laboratory detection limits.



Appendix D continued

Monitoring Well ID	Sample Date	TPH-g	TPH-d	B	T	E	X	MtBE
		µg/L						
PZ-1	12/30/99	ND	ND	ND	ND	ND	ND	ND
	3/28/00	ND	ND	ND	ND	ND	ND	ND
	9/07/00	ND	ND	ND	ND	ND	ND	ND
	11/15/00	ND	ND	ND	ND	ND	ND	ND
	3/28/01	NS	NS	NS	NS	NS	NS	NS
	7/26/01	<50	<50	4.8	<1.0	1.0	1.9	<1.0
	10/16/01	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0
	1/14/02	NS	NS	NS	NS	NS	NS	NS
	4/22/02	<50	<50	0.47	1.6	0.73	2.4	<0.5
	7/23/02	<50	<50	0.75	<0.30	<0.50	<0.50	<0.50
	12/04/02	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	3/26/03	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	9/10/03	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	3/04/04	<50	110	<0.30	<0.30	<0.50	<0.50	<0.50
	7/02/04	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	3/15/05	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50
	9/23/05	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50

ND = not detected at or above the laboratory test method detection limits.
 NS = not sampled.
 NA = not analyzed.
 < = less than the reported laboratory detection limits.



Appendix D continued - Supplemental Geochemical Parameters

Sample Date	Monitoring Well ID	Total Alkalinity	Free CO ₂ *	NO ₃ ⁻¹	SO ₄ ⁻²	Mn	Fe ⁺²	ORP
		mg CaCO ₃ /L	mg CO ₃ /L	mg/L				mVolts
10/16/01	MW-1	410	210	<0.5	3.1	3.2	19	140
	MW-2	110	170	11	29	0.031	<0.5	270
	MW-3	530	270	<0.5	2.7	4.3	18	170
	PZ-1	270	54	2.1	63	0.090	<0.5	260

Note = See attached laboratory report for pH readings, and Free CO₂ as calculated by the laboratory.

Sample Date	Well ID	Total Alkalinity as CaCO ₃	Dissolved Oxygen (DO)	Nitrate (NO ₃)	Sulfate (SO ₄)
			mg/L	mg/L	mg/L
7/02/04	MW-1	380	0.46	<1.0	<0.50
	MW-2	NA	0.73	NA	NA
	MW-3	490	0.62	<1.0	1.5
	MW-4	NA	1.93	NA	NA
	MW-5	70	0.59	<1.0	12
	MW-6	71	3.45	<1.0	13
	PZ-1	200	0.45	1.2	46

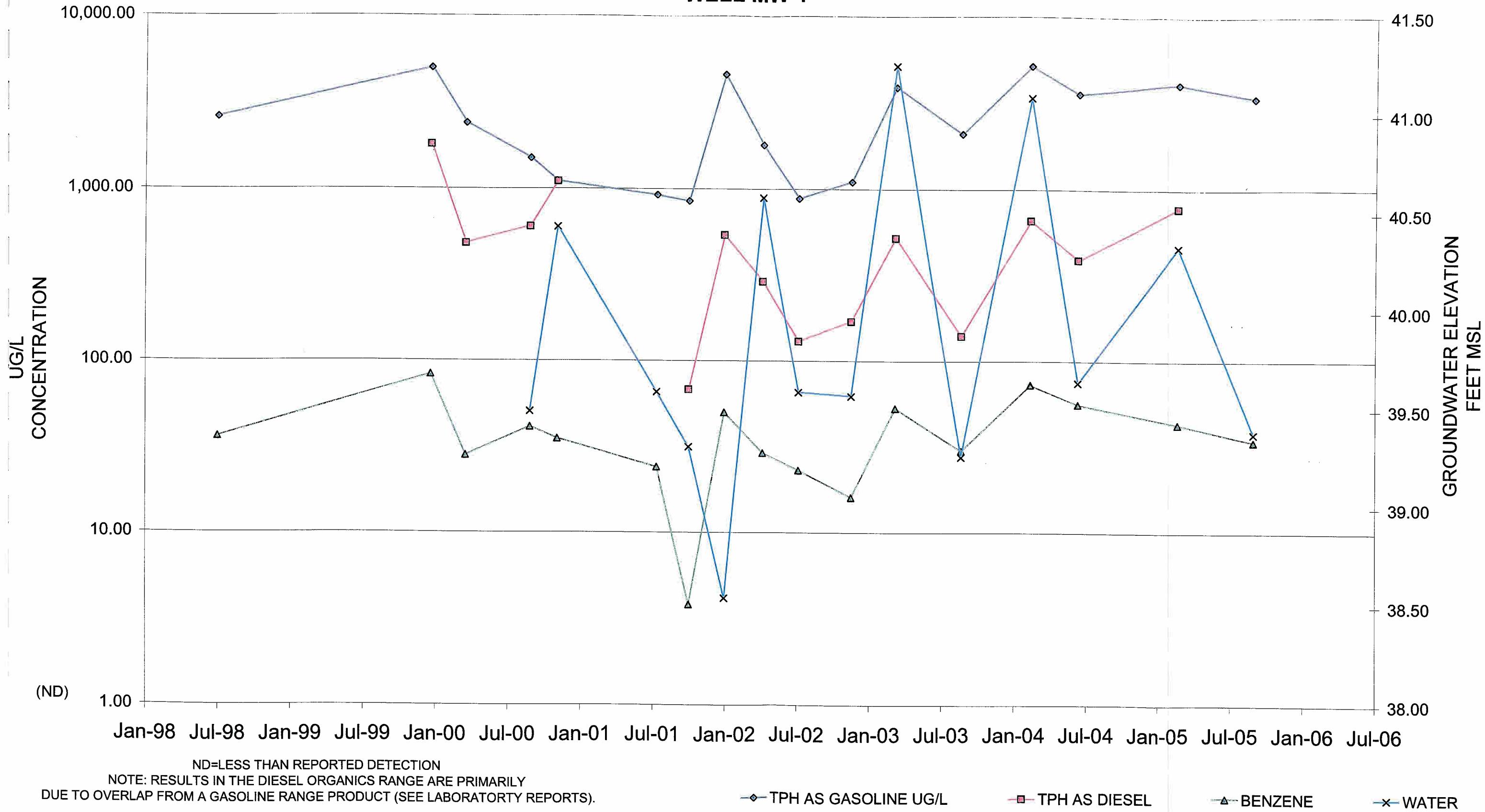
< = Less than the indicated laboratory test method detection limit.
 NA = Not analyzed.



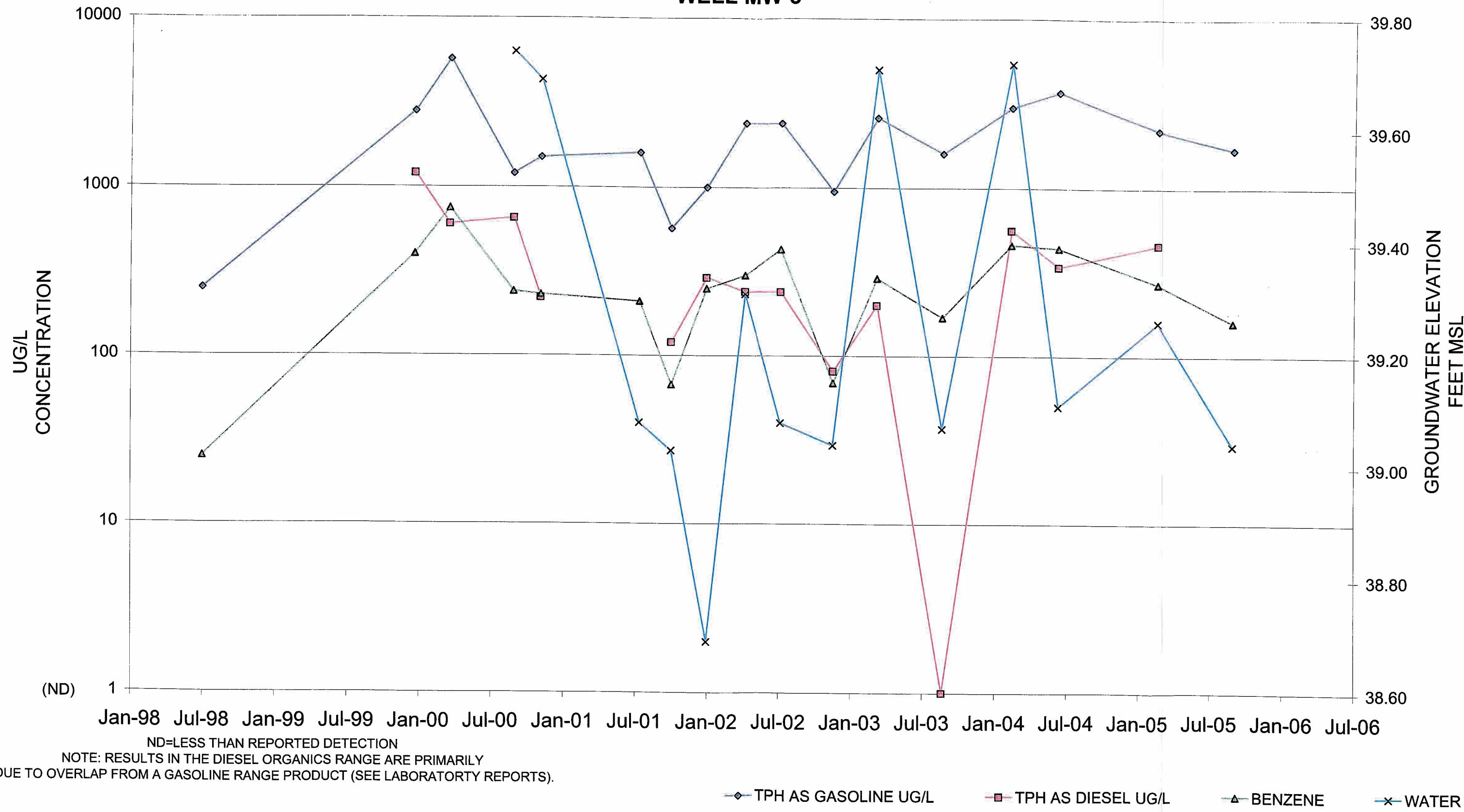
APPENDIX E

(Continued)

TIME vs. CONCENTRATION GRAPH
FERNDALE MOTORS
638 MAIN ST FERNDALE
TTC Job No. 3046.01
WELL MW-1



TIME vs. CONCENTRATION GRAPH
FERNDALE MOTORS
638 MAIN ST FERNDALE
TTC Job No. 3046.01
WELL MW-3



DISTRIBUTION LIST

3rd Quarter 2005 Monitoring Report

**Ferndale Motors
638 Main Street
Ferndale, California**

**October 7, 2005
Job No. 3046.01**

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